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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,175	09/12/2003	Katsuji Meguro	SIMTEK6573	2174
25776	7590	07/02/2004	EXAMINER	
ERNEST A. BEUTLER, ATTORNEY AT LAW 10 RUE MARSEILLE NEWPORT BEACH, CA 92660			VRABLIK, JOHN J	
			ART UNIT	PAPER NUMBER

3748

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/605,175

Applicant(s)

MEGURO, KATSUJI

Examiner

John J. Vrablik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 17-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 08 December 2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities: Par. [0032], line 11, "62" second occurring, should be --63--; and par. [0033], line 3, --and 65-- should be inserted after "64".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 10, 11 and 16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by any of Osborne (Fig. 1), Haupt (Fig. 1) and Friedmann (Fig. 1). Each of the references shows an intermeshing gear pump comprised of an outer housing defining a pumping cavity in which a pair of intermeshing gears are journaled for pumping a fluid from a fluid inlet to the pumping cavity to a pumping outlet from the pumping cavity, the intermeshing gears (22, 23 in Osborne; 2, 3 in Haupt and 1, 2 in Friedmann) having end faces at opposite sides of the gears extending perpendicularly to the rotational axes of the gears, the outer housing comprising a main body part (12 in Osborne, 1 in Haupt and 4 in Friedmann) and a pair of end plates (11, 13 in Osborne; 10, 11 in Haupt and 3, 5 in Friedmann) affixed thereto, the main body part having an opening extending axially there through defining a portion of the pumping cavity facing

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the circumferential peripheral surfaces of the gears, the end plates each closing a respective side of the main body part opening a being in confronting relation to respective of the gear end faces for closing the pumping chamber, a fastener arrangement (19 in Osborne, 17 in Haupt and 6 in Friedmann) for affixing the end plates and the main body part together, and (claim 7) wherein at least one of the gears is detachably supported (27 in Osborne, 20 in Haupt and 9 in Friedmann) on a shaft journaled by the end plates as claimed.

Claim 2 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Osborne or Friedmann. The references further show a fluid passage in the form of a groove (24, 25 in Fig. 7 of Osborne and 15, 16 in Fig. 2 of Friedmann) formed in one side of the main body part communicating with the pumping cavity and closed by one end of the end plates, and the one of the end plates formed with a fluid passage (41, 42 in Fig. 4 of Osborne and 19, 26 in Fig. 2 of Friedmann) passing there through and communicating with the groove as recited.

Claims 8, 9 and 12-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Haupt (Fig. 3). The reference further shows the coupling pin (20) extending through the shaft and received in a slot (21) in the gear as claimed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Osborne or Friedmann in view of Rhode (Fig. 2). The claims add a check valved passage in an end plate for providing one way fluid communication with the groove. Rhode teaches having a check valve (71) for providing one way fluid communication with a groove to supply make-up fluid to the pump. It would have been obvious to one having ordinary skill in the art to provide either Osborne or Friedmann with a valved one way passage, as taught by Rhode, to furnish any make-up fluid that is required by the pump due to leakage losses.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Osborne or Friedmann in view of Rhode as applied to claim 4 above, and further in view of Glomeau (Fig. 2). The claims add a second check valve providing one way fluid communication with the second groove. Glomeau teaches employing two one way check valves (132, 133) to form one way fluid communication with the gear pump (127) grooves in either direction of rotation of the gear pump.

#### ***Election/Restrictions***

Claims 17-29 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 17 May 2004.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Andres et al. and Cortez further disclose gear pumps having a

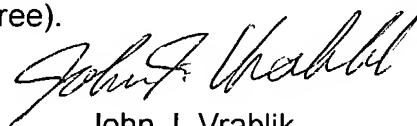
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main body part and separate end plates ; and Reller (Fig. 4) and Bechler (Fig. 5) teach detachably supporting a gear on a shaft.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Vrablik whose telephone number is (703) 308-2629. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Vrablik  
Primary Examiner  
Art Unit 3748

jjv